

REMARKS

Claims 1-16 are pending in this application. Claims 1-16 are rejected; claims 1-2 and 9-10 are amended hereby.

Responsive to the rejection of claims 1-3 and 5-8 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 4,116,200 (Braun et al.) and to the rejection of claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Braun et al., Applicant has amended claims 1 and 2. Accordingly, Applicants submit that claim 1, and claims 2-8 depending therefrom, are now in condition for allowance.

Braun et al. discloses a surgical milling tool for milling the heads or sockets of bone joints of spherical shape. The tool is formed of a hemispherical cup integrally formed with a cylindrical skirt and flange and is provided with a plurality of openings of semi-oval shape, each having a cutting edge arranged at the minor axis of the oval shape. The openings are situated such that, upon rotation of the cup, the cutting edges thereof overlap to provide a continuous cutting edge surface conforming generally to the shape of the cup (Abstract).

In contrast, claim 1, as amended, recites in part “said center segments being positioned relative to each other to form a collective cutting profile at a substantially constant distance from said distal face of said cutting head, said collective cutting profile comprising each of said center segments of said plurality of cutting teeth.” (Emphasis added). Applicant submits that such an invention is neither taught, disclosed or suggested by Braun et al., or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Braun et al. discloses that “the cutting edges do not have to lie unconditionally in [the axial planes or the planes which form a sharp angle with the axial planes]. They can be also curved as viewed from above” (column 4, lines 57-66). Braun et al. also discloses that “all of the cutting edges of the milling tool are formed by the openings of the edges running in sequence, so

that at least those cutting edges with a distance from the rotating axis smaller than the radius of the flat surface of the half-sphere run essentially over the entire length of the cutting edges which remain at the same distance from this flat surface of the sphere..." (column 1, lines 57-64). Braun et al. further discloses that "[a]ll the openings 19 and 21 are so arranged that the cutting edges 22 and 23, respectively, follow the appropriate opening when the tool rotates, and that the trajectories of these cutting edges cover the entire inner surface of the hemispherical portion 15, of the neck 17, and of the adjacent inner part of the border 18, as shown in FIG. 2" (column 3, lines 50-56). Applicant submits that Braun et al., thus, fails to disclose or suggest a cutting head with cutting teeth positioned relative to each other to form a cutting profile at a substantially constant distance from the distal face of the cutting head, wherein the collective cutting profile includes each of the center segments of the plurality of cutting teeth, as recited in claims 1 and 9.

An advantage of the present invention is that it provides for cutting teeth which cuts the bone smoothly.

For the foregoing reasons, Applicants submit that claim 1, and claims 2-8 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 9-11 and 13-16 under 35 U.S.C. § 102(b) as being unpatentable over Braun et al. and to the rejection of claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Braun et al., Applicant has amended claims 9 and 10 (note, it is assumed that the Office Action was intended to state claims 13-14 at the top of page 3, rather than claims 13-19, since claims 18-19 do not exist). Accordingly, Applicants submit that claim 9, and claims 10-16 depending therefrom, are now in condition for allowance.

Braun et al. is discussed above.

In contrast, claim 9, as amended, recites in part "said center segments being positioned relative to each other to form a collective cutting profile at a substantially constant distance from

said distal face of said cutting head, said collective cutting profile comprising each of said center segments of said plurality of cutting teeth.” (Emphasis added). Applicant submits that such an invention is neither taught, disclosed or suggested by Braun et al., or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Braun et al. discloses that “the cutting edges do not have to lie unconditionally in [the axial planes or the planes which form a sharp angle with the axial planes]. They can be also curved as viewed from above” (column 4, lines 57-66). Braun et al. also discloses that “all of the cutting edges of the milling tool are formed by the openings of the edges running in sequence, so that at least those cutting edges with a distance from the rotating axis smaller than the radius of the flat surface of the half-sphere run essentially over the entire length of the cutting edges which remain at the same distance from this flat surface of the sphere...” (column 1, lines 57-64). Braun et al. further discloses that “[a]ll the openings 19 and 21 are so arranged that the cutting edges 22 and 23, respectively, follow the appropriate opening when the tool rotates, and that the trajectories of these cutting edges cover the entire inner surface of the hemispherical portion 15, of the neck 17, and of the adjacent inner part of the border 18, as shown in FIG. 2” (column 3, lines 50-56). Applicant submits that Braun et al., thus, fails to disclose or suggest a cutting head with cutting teeth positioned relative to each other to form a cutting profile at a substantially constant distance from the distal face of the cutting head, wherein the collective cutting profile includes each of the center segments of the plurality of cutting teeth, as recited in claims 1 and 9.

An advantage of the present invention is that it provides for cutting teeth which cuts the bone smoothly.

For the foregoing reasons, Applicants submit that claim 9, and claims 10-16 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

For the foregoing reasons, Applicant submits that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicant respectfully requests withdrawal of all rejections and allowance of the claims.

In the event Applicant has overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby conditionally petitions therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

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